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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/391,459	09/08/1999	HEIZO KITAJIMA	33701M002	8638

441 7590 05/09/2003

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WASHINGTON, DC 20036

EXAMINER

ZURITA, JAMES H

ART UNIT	PAPER NUMBER
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3625

DATE MAILED: 05/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/391,459

Applicant(s)

KITAJIMA, HEIZO

Examiner

James Zurita

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,3,4,6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Continued Prosecution Application***

The request filed on 14 February 2003 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/391459 is acceptable and a CPA has been established.

The preliminary amendment submitted with the request has been entered. An action on the CPA follows.

Claims 1, 2, 3, 4 and 6 remain and will be examined.

***Response to Arguments***

Applicant's arguments submitted with the request for Continued Prosecution Application have been fully considered but they are not persuasive.

Applicant argues that the amendments to independent claims 1 and 6, made in contemplation of col. 10, line 31 – Col. 11, line 30 of Anderson, are not taught or suggested by Anderson. Applicant argues that the amended claims are in condition for allowance.

In response to this argument, the amendment does not place the claims in condition for allowance, as explained in the comments below.

### ***Specification***

The disclosure is objected to because of the following informalities: Page 13, line 2, should be changed from "The sales rate setting column 7 is provided..." to "The sales rate setting column **7h** is provided..." Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 6 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants amended the specification to include the following on page 13:

It follows that if M represents the high-ranking clients, M can be expressed as  $M = A \times R$ , where A is the total sales amount of the designated goods and R is the sales rate of the designated goods. Thus, in retrieving clients, for example, a sales rate of 80% is inputted in the sales setting column 7h on the retrieval screen 7 [sic] shown in Fig. 10 to narrow the clients to those meeting the requirements designated. This thereby extracts the limited **number** of clients, M, as the high-ranking clients. As a result, none of the clients who accidentally stop over at the store to buy the designated goods are extracted.

The amended specifications and claims identify M as representing a *number* of clients that meet the criteria of being high-ranking in some context. A is defined as the total sales amount (expressed in some currency, perhaps US dollars) for a set of designated goods. R is defined as a sales rate for the same set goods designated in A, expressed as a percentage.

Therefore, where  $A = \$10,000$  and  $R = 80\%$ ,  $M = \$8,000$ . The *amount* of \$8,000 does not represent a *number* or a *limited* number of clients, however defined or claimed.

For purposes of this examination, the claims will be interpreted as being directed to (a) identifying groups of clients (b) targeting advertisements or mailings to clients in the identified groups of clients. The purpose of such a system would be to permit business to make more effective use of limited (advertising) resources by targeting clients who are determined to be their best customers or biggest spenders. Other terms for this type of analysis include segmentation strategy<sup>1</sup>, Pareto's Law<sup>2</sup>, cluster analysis<sup>3</sup>.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al., US Patent 5,974,396 in view of an article by Martin Evans, "From 1086 and 1984: direct marketing into the millennium", published in Marketing

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<sup>1</sup> Segmentation strategy is a marketing plan where marketing efforts are directed an one particular market segment. BARONS Dictionary of Business Terms.

<sup>2</sup> Pareto's Law, also called *law of the trivial many and the critical few*, or *80-20 law*. Id. See also references to *Paretian optimum* or *Pareto optimality*.

<sup>3</sup> Cluster analysis is a method of statistical analysis that groups people or things by common characteristics of interest to a researcher. Can be used to characterize the behavior or interests of various customer clusters such as yuppies, so that promotion copy and design can be specifically targeted to them. Cluster analyses are frequently based upon geographic criteria so that mailings can be sent to the best clusters. Id.

Intelligence & Planning; Bradford; 1998, and downloaded from the Internet on 1 May 2003 / hereinafter *Marketing into the millennium*.

Anderson discloses systems and methods that permit targeted advertisements to subsets of clients based on specified client clusters and product clusters. Products may be classified as belonging in clusters according to various criteria. Client may be classified as belonging to clusters (sets, subsets, groups, etc.), by various criteria, including households, income range, age groups, purchasing habits, etc.

Anderson stores transactional purchase data in relational databases. Anderson discloses methods and systems that include:

- means for storing client data including individual data including customers' code numbers, names, ages, addresses and telephone numbers (Anderson uses the term member identification number instead of client code. See at least Col. 3, lines 9-29; Col. 8, line 44-Col. 10, line 30 for references to client/consumer demographics, including Membership Identification Numbers/MIN, age of each customer in a household, name of each customer of a household, their date of birth, name of pets in a household, address and other types of demographic data);
- means for storing sales company goods data including sales goods, departments (see at least Col. 14, lines 50-59), names of classes of goods, codes for goods, prime unit prices, and sales unit prices (see at least Col. 2, line 56- Col. 3, line 8; for sales company goods, see at least Col. 8, lines 11-46; for references to manufacturer and type of product, see at least Col. 2, line 56-Col. 3, line 7; for names of classes of goods, see references to generic product clusters, at least in Col. 2, lines 56-67; for codes for

goods, see at least references to Universal Product Code/UPC, at Col. 7, lines 31-67;  
for sales unit prices, see at least references to selling price of a unit of a product, Col.  
21, lines 30-Col. 22, line 25);

- means for storing data of goods purchased by customers (see at least Co. 10, lines 31-46 for historical and transactional data stored in relational databases) and;
- means for retrieving results representative of high-ranking customers who contribute to sales of one or more goods designated by setting at least conditions of time period, class of goods and sales rate from the data of the goods purchased (see at least Col. 10, line 46-Col. 6, line 5, describing retrieval of data with SQL); and
- means for outputting and printing results retrieved (see at least references to Print Systems Analysis and Print Intelligence databases; see also Col. 4, lines 19-49, Col. 11, line 31 – Col. 12, line 26).

Anderson discloses a system wherein (a) means for storing client data, (b) means for storing goods data and (c) means for storing goods sales data comprise a recording medium such as a magnetic card, a plurality of terminal devices, a main computer, and a data storing device (see at least Col. 8, line 21-Col. Col. 24, line 13, for types of recording and storage media, databases and files).

Anderson discloses a system wherein retrieving high-ranking customers comprises a plurality of terminal devices and a main computer (see at least Col. 4, lines 19-49; Col. 7, line 5-Col. 8, line 14, references to terminals, including POS terminals. Anderson describes various types of computers, including supervisory computers,

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supervisory processors, local computers, network computers, including clients and server computers: see at least Col. 3, lines 1-Col. 4, line 59, and Col. 9, lines 3-19).

Anderson discloses a system wherein outputting and printing the retrieved result comprises a printer and a card issuing machine (see at least Col. 4, lines 19-49 for references to various subsystems, including printers; Col. 10, line 46-Col. 6, line 5, describing retrieval of data; see at least references to Print Systems Analysis and Print Intelligence databases; see also Col. 4, lines 19-49, Col. 11, line 31 – Col. 12, line 26). Anderson teaches that data may be analyzed according to time periods: See at least references to Thanksgiving. Thanksgiving is a holiday period in the United States and Canada. The holiday spans several days (start/end dates). Customers shop for certain classes of goods, such as food items, including turkeys (see at least Col. 1, lines 1-36). The rate of sales of classes of goods for holiday periods may be calculated from stored customer transaction details. Data may be analyzed according to household and even members in households. Thus, Anderson teaches production of behavior reports showing customer buying across time intervals (see also at least Col. 14, lines 53-60).

Anderson gives at least several examples of SQL queries (see response to arguments, above). With SQL, one may obtain total purchases of a good for specified start and end dates. This data is stored as detailed transaction data. One would use a SQL SUM function on a desired column (such as item price) to obtain the total amount of money exchanged for a particular period for a class of good specified in the SELECT clause of a SQL query. Using the total amount of money exchanged for a particular period for a particular class of goods, one could use SQL GROUP BY and ORDER BY



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functions to obtain each customer's amount of money exchanged for the particular period for the class of goods. One would then divide each customer's amount of money by the total amount of money and multiply the result by 100, providing a percent for each customer. One would use SQL to select those customers whose purchases amounted to a percentage specified in Fig. 10, item 7h, next to the Set Sales label.

Anderson also teaches that other queries may be composed:

A variety of database development tools well known to those skilled in the art, such as SQL\*PLUS.TM., SQR.TM. available from SQL Solutions Inc., SQL\*Forms.TM., SQL\*MENU.TM. and PRO\*C.TM. which are available from ORACLE.TM., may be used by the database programmer to perform various functions and provide various capabilities to the end user (retailer). For example, the SQL\* forms and SQL\*MENU tools may be used in the present invention to develop a user-friendly interface to the frequent shopper data base. The user-friendly interface allows unfamiliar users to construct requests and queries of the database without having particular expertise with ORACLE.TM. or SQL software. SQL\*PLUS is an interactive SQL command interface that permits a user to query the database as well as add and edit database objects. With this particular tool, a programmer creates one or more "scripts" which are essentially very high level language programs for further simplifying use of the database by an end user like the retailer. PRO\*C is another useful tool which precompiles code written in the programming language C which includes SQL statements embedded in the C code to generate executable code. SQR.TM. is a procedural reporting tool that has useful query and formatting capabilities. (Col. 9, line 52-Col. 10, line 10)

Anderson **does not** use the term high-ranking clients, and **does not** define high-ranking clients as those clients who have sales rate = [specified %]. Anderson **does not** use applicant's formula  $M = A * R$  (where A is the total sales amount of the designated goods, and R is the sales rate of the designated goods) to identify and retrieve information from the databases.

Anderson suggests the use of scripts as menu options to retrieve data as needed to target those customers with promotional and advertising material directed to products within clusters. Anderson presents a query statement that access card identification numbers of consumers who spend \$50 or more on the average visit to the retail store.

Anderson suggests that other queries might permit retailers to obtain information such as which customers spend the most money (1) overall, (2) per particular cluster or (3) particular time of year.

*Marketing into the millennium* discusses effective targeting of marketing and discloses the use of the Pareto principle, which suggests that transactional data must be tracked by a database and that actual purchase history is needed for analysis. According to *Marketing into the millennium*, Vilfredo Pareto's theory of income distribution has been transferred and borrowed by direct marketers to support the proposition that 80 per cent of sales come from just 20 per cent of customers - in many markets the ratio can be even more polarised (95:5 is not uncommon).

Therefore, it would have been obvious to one of ordinary skill in the art of electronic commerce at the time the invention was made to combine Anderson's examples to retrieve high-ranking client data based on a percent of total sales, with *Marketing into the millennium* discussion of the 80-20 rule to select subsets of clients and target these clients with mailings and advertisements.

One of ordinary skill in the art of electronic commerce at the time the invention was made to combine Anderson's examples to retrieve high-ranking client data based on a percent of total sales, with *Marketing into the millennium* discussion of the 80-20 rule to select subsets of clients and target these clients with mailings and advertisements for the obvious reason that targeting those clients that provide a business with sales over a percentage such as 80% makes it possible to apply well-known rules to selecting their best clients.

One would want to use percentages for the obvious reason that it would be less effective to send promotional materials to customers who have purchased minimal quantities of a product class. For example, one would be less likely to target customers whose purchases have decreased from 0.001 percent to 0.0005 percent of a class of goods, while one would be more likely to send marketing materials and coupons to customers whose purchases have increased from 40% to 60% of seller's total for the class of goods.

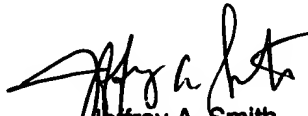
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Zurita whose telephone number is 703-605-4966. The examiner can normally be reached on 8:30 am to 5:00 pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wynn Coggins can be reached on 703-308-1344. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

*JZ*  
**James Zurita**  
**Patent Examiner**  
**Art Unit 3625**  
May 2, 2003

  
**Jeffrey A. Smith**  
**Primary Examiner**